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OM protein - protein search, using sw model

Run on: May 7, 2002, 12:00:48 ; Search time 53.91 Seconds
(without alignments)
195.111 Million cell updates/sec

Title: US-09-772-103-10

Perfect score: 742

Sequence: 1 MAVLVFLCLVAFPCVLSQ.....MKRGYANDYWGQGLTVTVSS 142

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 522463 seqs, 74073290 residues

al number of hits satisfying chosen parameters: 522463

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : A.Geneseq_1101.*

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21: /SIDS8/gcgdata/geneseq/geneseq/AA2000.DAT.*
22: /SIDS8/gcgdata/geneseq/geneseq/AA2001.DAT.*

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	742	100.0	142	22	AAAG66523
2	664	89.5	142	22	AAAG66520
3	603.5	81.3	137	18	AAW30273
4	545	73.5	140	18	AAW22538
5	541.5	73.0	137	22	AAW22538
6	530	71.4	151	17	AAW89841
7	529.5	71.4	135	8	AAW70991
8	527.5	71.1	137	18	AAW30277
9	527	71.0	138	17	AAW01146
10	525	70.8	119	17	AAW98492
11	525	70.8	138	22	AAW69656

12	522	70.4	119	19	AAW42471	NEWM humanised hea
13	518	69.8	138	18	AAW08942	Heavy chain variab
14	515.5	69.5	116	17	AAW05823	Humanised ID10 ant
15	515.5	69.5	273	17	AAW05827	Humanised ID10 ant
16	515.5	69.5	446	17	AAW05829	Humanised ID10 ant
17	515	69.4	138	18	AAW08944	Heavy chain variab
18	515	69.4	183	12	AAW15326	IL-2 chimeric anti
19	515	69.4	183	14	AAW15326	Anti-IL2R-alpha an
20	514	69.3	152	20	AAW49210	MAB 1A7 heavy chai
21	514	69.3	152	20	AAW49210	Monoclonal antibod
22	514	69.3	152	20	AAW28469	Heavy chain variab
23	514	69.3	263	20	AAW28470	Anti-Idiotypic mono
24	509	68.6	152	17	AAW03200	Anti-Idiotypic mono
25	507.5	68.4	120	20	AAW22432	TM27 antibody VH c
26	507	68.3	144	17	AAW98944	Humanised anti-CD3
27	504.5	68.0	118	22	AAW81970	Ganglioside GD2 sp
28	504.5	68.0	120	20	AAW22432	TM27 antibody VH c
29	504.5	68.0	581	22	AAW81972	Ganglioside GD2 sp
30	503.5	67.9	120	20	AAW22431	TM27 antibody VH c
31	502.5	67.7	120	20	AAW22430	TM27 antibody VH c
32	498.5	67.2	133	18	AAW10546	Wild type murine a
33	497.5	67.0	120	20	AAW22433	TM27 antibody VH c
34	494.5	66.6	120	16	AAW77303	Variable heavy cha
35	492.5	66.4	132	15	AAW53331	KM-603 heavy chain
36	492.5	66.4	132	20	AAW28359	Antibody heavy cha
37	491.5	66.2	133	18	AAW10538	Humanised murine a
38	488.5	65.8	133	18	AAW10540	Humanised murine a
39	488	65.8	123	18	AAW07438	Anti-DNA antibody
40	486.5	65.6	133	18	AAW10539	Humanised murine a
41	486	65.5	113	13	AAW21268	Murine VH group 2
42	485.5	65.4	120	12	AAW13310	HuVhlys. Syntheti
43	485	65.4	119	19	AAW42451	Mouse anti-human I
44	485	65.4	120	12	AAW11986	Human anti-placent
45	484.5	65.3	133	18	AAW10542	Humanised murine a

ALIGNMENTS

RESULT 1

AAAG66523
ID AAG66523 standard; Protein; 142 AA.

XX AC AAG66523;

XX DT 22-0CT-2001 (first entry)

XX DE Humanised anti-CTLA4 heavy chain.

XX KW Human; CTLA4; cytotoxic T lymphocyte associated antigen 4; anti-CTLA4;

XX KW Immunosuppressive; immunomodulator; antiallergic; vaccine; antibody;

XX KW T cell; humanised antibody; autoimmune disorder; graft rejection;

XX KW allergy; heavy chain.

XX OS Homo sapiens.

XX OS Mus musculus.

XX OS Synthetic.

XX PN WO200154732-A1.

XX PD 02-AUG-2001.

XX PF 26-JAN-2001; 2001WO-US02653.

XX PR 27-JAN-2000; 2000US-0178473.

XX PA (GENY) GENETICS INST INC.

XX PI Carreno BM, Wood C, Turner K, Collins M, Gray GS, Morris D;

XX PI O'Hara D, Hinton P, Tsurushita N;

XX DR WPI; 2001-483195/52.

XX DR N-PSDB; AAH76441, AAH76443.

FT Binding-site 68..84 /note= "Complementarity determining region 2"
 FT Binding-site 116..126 /note= "Complementarity determining region 3"
 FT Misc-difference 20 /note= "Optionally Asn at position 1 of mature protein"
 FT Misc-difference 49 /note= "Optionally Ser at position 30 of the mature protein"
 FT Misc-difference 56 /note= "Optionally Ser at position 37 of the mature protein"
 FT Misc-difference 66 /note= "Optionally Ile at position 48 of the mature protein"
 FT Misc-difference 86 /note= "Optionally Ile at position 67 of the mature protein"
 FT Misc-difference 92 /note= "Optionally Val at position 73 of the mature protein"
 FT Misc-difference 93 /note= "Optionally Leu, Ile, and Met at position 74 of the mature protein"
 FT Misc-difference 102 /note= "Optionally Ile at position 74 of the mature protein"
 PN WO9737029-A1.
 XX 09-OCT-1997.
 XX 19-MAR-1997; 97WO-US04198.
 XX 22-MAR-1996; 96US-0621751.
 PA (BOEF) BOEHRINGER MANNHEIM GMBH.
 PA (PROT-) PROTEIN DESIGN LABS INC.
 XX Chang CN, Landolfi NF, Martin U;
 PI WPI: 1997-503114/46.
 DR N-PSDB; AAT90980.
 XX Antibodies to platelet derived growth factor beta receptor - inhibit PDGF BB-induced proliferation of cells expressing the receptor, used particularly for inhibiting intimal hyperplasia
 PT Claim 6; Fig 2C; 87pp; English.
 XX This is the amino acid sequence for the heavy chain of HuM4TS.22, a novel antibody which specifically binds to the platelet derived growth factor beta receptor (PDGF-R beta), but not within the fifth extracellular Ig-like domain, where the antibody inhibits PDGF BB-induced proliferation of a cell expressing the PDGF beta receptor. The antibody can be used in a method of inhibiting intimal hyperplasia in the vasculature of a mammal. The antibodies can be used for the treatment of disorders related to PDGF activity such as disorders involving proliferation of smooth muscle cells, and including restenosis following angioplasty.
 XX Sequence 137 AA;

Query Match 81.3%; Score 603.5; DB 18; Length 137;
 Best Local Similarity 83.1%; Pred. No. 1.5e-47;
 Matches 118; Conservative 5; Mismatches 14; Indels 5; Gaps 1;
 QY 1 MAVLVFLCLVAFPSCVLSQVQLQESGFLVPSQTLSTCTVSGFSLTSYGVYWRQPP 60
 Db 1 mavlallclvtfscalsqvlqesgpglvkpsqtlstctvsgfsltsygvynwrqpp 60

QY 61 GKLEWLGVWAGGTTNTNSALMSRLTISKDTSKNQVSLKSSVTAADTAVYVYCARPPH 120
 Db 61 gkglewlgilwtgggtsynsalksrlltskdtksknqgsklssvtaadtavyyca---- 116
 QY 121 AMMRKGYAMDYWGQGTLLTVSS 142
 Db 117 -tgtrgyffdywgqgtlvtvss 137
 RESULT 4
 AAW22538
 ID AAW22538 standard; Protein; 140 AA.
 XX
 AC AAW22538;
 DT 03-NOV-1997 (first entry)
 DE Murine anti-human class II monoclonal antibody 44H104 VH chain.
 XX Antibody; light chain; variable region; hybridoma cell line 44H104;
 KW immune response; enhance; stimulate; vaccine; immunodiagnosis;
 KW antigen delivery.
 XX
 OS Mus musculus.
 XX
 PN WO9640941-A1.
 XX 19-DEC-1996.
 PD 07-JUN-1996; 96WO-CA00400.
 PF 07-JUN-1995; 95US-0483576.
 PR (CONN-) CONNAUGHT LAB LTD.
 PA Anand NN, Barber BH, Caterini JE, Cates GC, Klein MH;
 PI WPI: 1997-077271/07.
 DR N-PSDB; AAT77852.
 XX Recombinant conjugate antibody mol., modified for delivering an antigen - elicits enhanced immune response without the use of adjuvant to generate antibodies which are useful in vaccines or immuno:diagnosis
 PT Example 1; Fig 1B; 64pp; English.
 PS
 CC Novel recombinant conjugate antibody molecules comprise a monoclonal antibody specific for a surface structure of antigen presenting cells (APC), genetically modified to contain at least one antigen exclusively at one or more preselected sites. The conjugate is capable of delivering the antigen to APC and eliciting an immune response to the antigen. The new conjugates are useful as vaccines and are able to elicit an enhanced immune response without the use of an adjuvant. In a specific example, a conjugate antibody constructed using the murine anti-human class II monoclonal antibody secreted by hybridoma 44H104. The peptide CLTB36 was chosen as antigen; it consists of a tandemly linked T and B cell epitope derived from HIV MN strain. The present sequence represents the heavy chain variable region from 44H104 which was used in the preparation of a conjugate with antigen CLTB36.
 XX Sequence 140 AA;

Query Match 73.5%; Score 545; DB 18; Length 140;
 Best Local Similarity 76.2%; Pred. No. 3.1e-42;
 Matches 109; Conservative 12; Mismatches 18; Indels 4; Gaps 2;
 QY 1 MAVLVFLCLVAFPSCVLSQVQLQESGFLVPSQTLSTCTVSGFSLTSYGVYWRQPP 59
 Db 1 mavlvflslafpscvlsqvlqesgpglvkpsqtlstctvsgfsltsygvhwvrqp 60

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RESULT 5
ID AAB81975
XX AAB81975;
AC AAB81975;
DT 03-JUL-2001 (first entry)
DE Ganglioside GD2 specific antibody related protein #1.
XX Ganglioside; GD2; complementation determining region; CDR; antibody;
KW mouse; cancer.
OS Mus musculus.
XX WO200123573-A1.
XX 05-APR-2001.
XX 29-SEP-2000; 2000WO-JP06773.
XX 30-SEP-1999; 99JP-0278290.
XX (KYOW) KYOWA HAKKO KOGYO KK.
XX Hanai N, Shitara K, Nakamura K, Niwa R;
XX WPI: 2001-266163/27.
XX N-PSDB; AAF86854.
XX Human type complementation-determining domain transplanted antibody and
PT derivatives against ganglioside GD2, useful in diagnosis and therapy of
PT e.g. tumours, has low antigenicity, little side effects but potent
PT activity in cancer.
XX Example 2; Page 96-97; 123pp; Japanese.
XX The present invention describes an antibody, which can react specifically
XX with ganglioside GD2, and is transplanted with a human type
XX complementation-determining domain (CDR), or its fragments. The antibody
XX and its derivatives are useful in diagnosis and therapy of tumours,
XX particularly cancer diagnosis. The present sequence is a protein
XX used in the exemplification of the invention.
XX CC
XX SQ
Sequence 137 AA;

Query Match 73.0%; Score 541.5; DB 22; Length 137;
Best Local Similarity 74.1%; Pred. No. 6.3e-42;
Matches 106; Conservative 15; Mismatches 15; Indels 7; Gaps 2;

OY 1 MAVLVFLCLVAPPSCVLSQVQLQESGPGLVKPSQTLSTCTVSGFSLTSYGIVWVRQPP 60
Db 1 mavlvflclvappscvlsqvlkpsqtlstctvsgfsltsygiwvrqpp 60
OY 61 GKGLWLGVIWAGGTTNYSALMSRLTISKDTSKNOVSLKLSVTAADTAVYYCARGPPH 120
Db 61 gkglwlgviwaggtnynsalmsrltiskdtsknovslklsvtaadtavyycargpph 120
OY 121 AMMKRGYA-MDYWGQGLTVTVSS 142
Db 117 --rsddyswfaywgggtltvtvsa 137

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RESULT 6
ID AAR98941
XX AAR98941 standard; Protein; 151 AA.
AC AAR98941;
DT 03-JAN-1997 (first entry)
DE Humanised anti-CD38 monoclonal antibody variable heavy chain.
XX Monoclonal antibody; MAB; humanised; cancer; autoimmune disease;
KW multiple myeloma; lymphoma; rheumatoid arthritis; CD38;
KW complementary determining region; CDR; heavy chain; light chain.
XX Mus musculus.
OS Homo sapiens.
XX Key Location/Qualifiers
FH Region 52..56
FT /label= CDR 1.
FT Region 71..86
FT /label= CDR 2.
FT Region 119..129
FT /label= CDR 3.
XX WO9616990-A1.
XX 06-JUN-1996.
XX 28-NOV-1995; 95WO-GB02777.
XX 02-DEC-1994; 94GB-0024449.
XX (WELL) WELLCOME FOUND LTD.
XX Ellis JH, Lewis AP;
XX WPI: 1996-277724/28.
XX N-PSDB; AAT34815.
XX Humanised monoclonal antibodies with donor framework residues 29 and
PT 78 - esp. against CD38, useful for treating cancer and auto-immune
PT diseases
XX Disclosure; Figure 1; 92pp; English.
XX A monoclonal antibody (MAB) which has donor CDR's of foreign origin
XX and a recipient framework of human or primate origin, where the
XX original amino acid at position 29 or 78 of the heavy (H) chain of
XX the framework is replaced by an amino acid the same as or similar to
XX that in the corresponding position of the H chain of the Ab from
XX which the CDR's are derived, can be used for the treatment of cancer,
XX and autoimmune diseases, specifically multiple myeloma, lymphoma and
XX rheumatoid arthritis. The MAB binds to CD38. Replacing framework
XX residues 29 and 78 of the humanised Ab with the original donor
XX residues restores the antigen binding activity of the antibodies.
XX SQ
Sequence 151 AA;

Query Match 71.4%; Score 530; DB 17; Length 151;
Best Local Similarity 69.7%; Pred. No. 7.8e-41;
Matches 99; Conservative 19; Mismatches 20; Indels 4; Gaps 1;

OY 1 MAVLVFLCLVAPPSCVLSQVQLQESGPGLVKPSQTLSTCTVSGFSLTSYGIVWVRQPP 60
Db 3 lavalilclvtfpscvlsqvlkpsqtlstctvsgfsltsygiwvrqpp 62
OY 61 GKGLWLGVIWAGGTTNYSALMSRLTISKDTSKNOVSLKLSVTAADTAVYYCARGPPH 120
Db 63 gkglwlgviwaggtnynsalmsrltiskdtsknovslklsvtaadtavyycargpph 118
OY 121 AMMKRGYAMDYWGQGLTVTVSS 142

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Query Match	71.1%;	Score 527.5;	DB 18;	Length 137;
Best Local Similarity	71.1%;	Pred. No. 1.2e-40;		

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Matches 101; Conservative 14; Mismatches 22; Indels 5; Gaps 1;

QY 1 MAVLVFLCLVAFPPSCVLSQVLOESGPGVLVVKPSQTLSTCTVSGFSLTSYGVYVVRQPP 60
 DB 1 mavlallclvtfscalsqvlksgpglvpasgsisctctsgfsltnyainwvrqpp 60

QY 61 GKGLWLVGVIWAGGTTNYSALMSRLTISKDTSKNOVSLKSSVTAADTAVYYCARGPPH 120
 DB 61 ggglewlgviwtggtsynsalksrlsiskdsksqvflkmslqtdtdaryycar---- 116

QY 121 AMMKRGYAMDYGQGTTLTVSS 142
 DB 117 -tgttgydywgggttlvtss 137

RESULT 9
 ID AAW01146 standard; Protein; 138 AA.
 XX AAW01146;

10-FEB-1997 (first entry)
 MAB 10.1 heavy chain, directed against type II phospholipase A2.

XX Monoclonal antibody; phospholipase; myocardial infarction;
 KW pancreatitis; cerebral infarction; acute kidney failure; colitis;
 KW chronic rheumatism; adult respiratory distress syndrome;
 KW cardiac shock; treatment; preclinical testing; disease; hybridoma.
 XX Mus musculus.

XX Key Location/Qualifiers
 FH Binding-site 50..54 /label= CDR 1
 FT Binding-site 69..84 /label= CDR 2
 FT Binding-site 117..127 /label= CDR 3

XX WO9620959-A1.
 XX 11-JUL-1996.
 XX 27-DEC-1995; 95WO-JP02714.
 XX 29-DEC-1994; 94JP-0340006.

XX (YAMA) YAMANOUCHI PHARM CO LTD.
 PI Kawauchi Y, Masuho Y, Takasaki J, Yasunaga T;
 DR WPI; 1996-333946/33.
 DR N-PSDB; AAT40806.

XX Monoclonal antibody inhibiting type II phospholipase A2 activity
 PT for treatment of myocardial and cerebral infarction
 XX Claim 6; Figure 14; 69pp; Japanese.

XX Monoclonal antibodies which inhibit type II phospholipase A2 are
 CC useful in the treatment of myocardial infarction, cerebral
 CC infarction, acute kidney failure, chronic rheumatism, cardiac shock,
 CC pancreatitis, adult respiratory distress syndrome and colitis. The
 CC antibodies were generated by immunising Balb/C mice with recombinant
 CC human type II phospholipase A2. Spleen cells from the mice were
 CC fused with mouse myeloma P3U1 (P3x63Ag8.01) and the hybridomas
 CC obtained were screened for phospholipase A2 inhibitory activity.
 CC Active clones were isolated including 12H5, 1.4 and 10.1. These
 CC were cultured and the antibody isolated from the culture
 CC supernatant by precipitation with ammonium sulphate and purification
 CC on a column of protein A-Sepharose CL4B. Because the antibody acts
 CC on the primate and mouse forms of enzyme as well as human it is

CC particularly suitable for preclinical testing.

XX SQ Sequence 138 AA;

Query Match 71.0%; Score 527; DB 17; Length 138;
 Best Local Similarity 71.1%; Pred. No. 1.3e-40;
 Matches 101; Conservative 14; Mismatches 23; Indels 4; Gaps 1;

QY 1 MAVLVFLCLVAFPPSCVLSQVLOESGPGVLVVKPSQTLSTCTVSGFSLTSYGVYVVRQPP 60
 DB 1 mavlallclvtfscalsqvlksgpglvpasgsisctctsgfsltdfgvnwvrqpp 60

QY 61 GKGLWLVGVIWAGGTTNYSALMSRLTISKDTSKNOVSLKSSVTAADTAVYYCARGPPH 120
 DB 61 gkglewlgviwtgtditdysvklksrlsiskdsksqvflkmmnlqtdtdaryycardayy 120

QY 121 AMMKRGYAMDYGQGTTLTVSS 142
 DB 121 gf---yamdywgggtstvtss 138

RESULT 10
 ID AAR98492 standard; Protein; 119 AA.
 XX AAR98492;
 XX 12-OCT-1996 (first entry)
 DT NEWM humanised 2B6 antibody heavy chain variable region.
 DE Antibody engineering; humanised antibody; chimeric antibody; Fab;
 KW interleukin-5; IL-5; eosinophil; asthma; allergic rhinitis;
 KW atopic dermatitis; therapy; diagnosis; heavy chain; VH;
 KW monoclonal antibody; MAb.
 XX Synthetic.

XX Key Location/Qualifiers
 FH Region 1..30 /note= "human NEWM framework region"
 FT Region 31..35 /label= CDR1
 FT /note= "mouse MAB 2B6 VH CDR1"
 FT Region 36..49 /note= "human NEWM framework region"
 FT /note= 50..65 /label= CDR2
 FT /note= "mouse MAB 2B6 VH CDR2"
 FT Region 66..97 /note= "human NEWM framework region"
 FT Region 98..108 /label= CDR3
 FT /note= "mouse MAB 2B6 VH CDR3"
 FT Region 109..119 /note= "human NEWM framework region"

XX WO9621000-A2.
 XX 11-JUL-1996.
 XX 22-DEC-1995; 95WO-US17082.
 XX 06-JUN-1995; 95US-0470110.
 PR 23-DEC-1994; 94US-0363131.
 PR 06-JUN-1995; 95US-0467420.
 XX (SMIK) SMITHKLINE BEECHAM CORP.
 PA (SMIK) SMITHKLINE BEECHAM PLC.
 XX Ames RS, Appelbaum ER, Chaiken IM, Cook RM, Gross MS;
 PI Holmes SD, McMillan LJ, Theisen TW;

XX WPI; 1996-333976/33.
DR N-PSDB; AAT34095.

XX New monoclonal antibody to human interleukin-5 - used to produce
PT products for the treatment and diagnosis of conditions associated
PT with excess eosinophil prodn., e.g asthma etc.
XX

PS Claim 28; Page 87-88; 120pp; English.

XX The heavy chain variable region (AAR98492) of NEMM humanised antibody
CC 2B6 comprises complementarity determining regions (see also AAR98480-82)
CC derived from murine monoclonal antibody 2B6 VH (see also AAR98478) and
CC framework regions from human immunoglobulin NEW, but with amino acid
CC substitutions made at framework residues that might influence CDR
CC presentation. A synthetic variable light chain sequence (AAR98493)
CC was also constructed. Humanised 2B6 (see also AAR98488-89) is
CC specific for human interleukin-5 (IL-5) and can be used for the
CC diagnosis and treatment of IL-5-mediated conditions, e.g. asthma,
CC allergic rhinitis and atopic dermatitis.

Sequence 119 AA;

Query Match 70.8%; Score 525; DB 17; Length 119;
Best Local Similarity 81.3%; Pred. No. 1.7e-40;
Matches 100; Conservative 11; Mismatches 8; Indels 4; Gaps 1;

QY 20 QVQLQESGPGLVKPSQTLSTCTVSGFSLTSYGYYVVRQPPGKLEWLGVIWAGGTNYN 79
Db 1 qvqlqesgpglvkpsqtlstctvsgfsltsygvhwrvqppgkglewlgviwasggtcyn 60
QY 80 SALMSRLTISKDTSKNQVSLKSSVTAADTAVYYCARGPPHAMMKRGYAMDYGQGTPLVT 139
Db 61 salmsrlsltkdsknqvsrlssvtaadtavyyccardppssllr----ldywgqgttvt 116
QY 140 VSS 142
Db 117 vss 119

RESULT 11

AAB69656
ID AAB69656 standard; Protein; 138 AA.

AC AAB69656;

XX 30-APR-2001 (first entry)

Murine mik-beta1 antibody heavy chain SEQ ID NO: 33.

XX Humanised immunoglobulin; mouse; human; antibody; heavy chain; diabetes;
KW light chain; graft versus host disease; transplant; autoimmune disease;
KW multiple sclerosis; rheumatoid arthritis; systemic lupus erythematosus;
KW myasthenia gravis; herpes infection; myeloid leukaemia; CMV infection.

OS Mus sp.

XX US6180370-B1.

PN 30-JAN-2001.

XX 07-JUN-1995; 95US-0484537.

XX 28-DEC-1988; 88US-0290975.

PR 13-FEB-1989; 89US-0310252.

PR 28-SEP-1990; 90US-0590274.

PR 19-DEC-1990; 90US-0634278.

XX (PROT-) PROTEIN DESIGN LABS INC.

XX Queen CL, Selick HE;

XX

DR WPI; 2001-190856/19.
DR N-PSDB; AAF58728.

XX Producing humanized immunoglobulin, involves producing a cell
PT containing DNA segments encoding humanized heavy and light chain
PT variable regions, and expressing the DNA segments in the cell -
XX

PS Example 5; Fig 23; 145pp; English.

XX The present invention describes a method of producing humanised
CC immunoglobulins involving expressing in a cell a nucleic acid encoding a
CC humanised version of an immunoglobulin. This is obtained by comparing a
CC donor and human immunoglobulin and producing a combined antibody which
CC contains part of each. These are useful in the treatment of
CC graft-versus-host disease, transplant rejection, autoimmune diseases such
CC as diabetes, rheumatoid arthritis, myasthenia gravis, multiple sclerosis
CC and systemic lupus erythematosus, herpes infections, CMV virus infections
CC and myeloid leukaemia. The present sequence is an antibody used to
CC demonstrate the method of the invention.

SQ Sequence 138 AA;

Query Match 70.8%; Score 525; DB 22; Length 138;
Best Local Similarity 70.4%; Pred. No. 2e-40;
Matches 100; Conservative 21; Mismatches 17; Indels 4; Gaps 2;

QY 1 MAVLVLECLVAFPCVLSQVQLQESGPGLVKPSQTLSTCTVSGFSLTSYGYYVVRQPP 60
Db 1 mavlvleclvafpcvlsqvlkqsgplvqpsqslstctvsgfsvtsgyvhvwrqsp 60
QY 61 GKLEWLGVIWAGGTNYNSALMSRLTISKDTSKNQVSLKSSVTAADTAVYYCARGPPH 120
Db 61 gklewlgviwsggtdynaafrltskdnksqgfvfkvnslqpadaiyycaragdy 120
QY 121 AMMKRGYAMDYGQGTPLVTYSS 142
Db 121 ny--dgfa--ywggtlvtvsa 138

RESULT 12

AAW42471
ID AAW42471 standard; Protein; 119 AA.

XX AAW42471;

XX 22-JUN-1998 (first entry)

DE NEMM humanised heavy chain variable region.

KW Neutralising antibody; monoclonal antibody; MAB; 2B6; NEW; mouse;
KW interleukin-5; IL-5; human; eosinophil; asthma; allergic rhinitis;
KW atopic dermatitis; therapy; diagnosis; humanised antibody.

OS Chimeric - Mus musculus.

OS Chimeric - Homo sapiens.

XX Key Location/Qualifiers

FT Region 1..30

FT /label= FR1

FT /note= "NEW framework region 1"

FT Region 31..35

FT /label= CDR1

FT /note= "2B6 complementarity determining region 1"

FT Region 36..49

FT /label= FR2

FT /note= "NEW framework region 2"

FT /label= CDR2

FT /note= "2B6 complementarity determining region 2"

FT Region 50..65

FT /label= FR3

FT /note= "NEW framework region 3"

XX	Key	Location/Qualifiers	
PH	Region	31..35	
FT	/label=	CDR1	
FT	Region	50..65	
FT	/label=	CDR2	
FT	Region	98..105	
FT	/label=	CDR3	
FT	Misc-difference	27	
FT	/note=	"human framework residue 27 is substd. by equivalent murine framework residue"	
FT	Misc-difference	29	
FT	/note=	"human framework residue 29 is substd. by equivalent murine framework residue"	
FT	Misc-difference	30	
FT	/note=	"human framework residue 30 is substd. by equivalent murine framework residue"	
FT	Misc-difference	37	
FT	/note=	"human framework residue 37 is substd. by equivalent murine framework residue"	
FT	Misc-difference	67	
FT	/note=	"human framework residue 68 is substd. by equivalent murine framework residue"	
FT	Misc-difference	71	
FT	/note=	"human framework residue 71 is substd. by equivalent murine framework residue"	
FT	Misc-difference	73	
FT	/note=	"human framework residue 73 is substd. by equivalent murine framework residue"	
FT	Misc-difference	78	
FT	/note=	"human framework residue 78 is substd. by equivalent murine framework residue"	
FT	Misc-difference	82	
FT	/note=	"human framework residue 82 is substd. by a consensus amino acid of the equivalent murine framework residue"	
XX	WO9626964-Al.		
XX	06-SEP-1996.		
XX	29-FEB-1996;	96WO-US02754.	
XX	01-MAR-1995;	95US-0397411.	
XX	(IOWA-)	IOWA IMMUNOTHERAPY INVESTIGATORS.	
XX	(PROT-)	PROTEIN DESIGN LABS INC.	
XX	Gingrich R, Link BK, Tso JY, Weiner G;		
XX	WPI; 1996-412742/41.		
XX	New bispecific antibody reactive with both T or NK cells and malignant B cells - also their humanised forms and hybridomas producing them, useful for treating or preventing leukaemia, lymphoma and myeloma		
XX	Claim 14; Fig 4b; 85pp; English.		
XX	The variable region (AAW05823) of the humanised 1D10 antibody heavy chain (AAW05829) consists of human IC4 heavy chain variable region framework (substd. at 9 positions with mouse or consensus human amino acids) and complementarity determining regions from the murine 1D10 antibody specific for a 28/32 kDa heterodimeric antigen present on the surface of malignant B-cells. It can be coexpressed with humanised 1D10 light chain (see also AAW05828) in e.g. mouse myeloma NSO cells. Humanised antibody fragments can be incorporated into novel bispecific antibodies reactive with both effector cell antigens (see also AAW05824-25, AAW05826 and AAW05830) and malignant B-cells.		
XX	Sequence	116 AA;	
XX		SQ	

Query Match	69.5%;	Score 515.5;	DB 17;	Length 116;
Best local Similarity	80.5%;	Pred. No. 1.2e-39;		
Matches	99;	Conservative	10;	Mismatches 7; Indels 7; Gaps
QY	20	QVQLQESGPGLVKPSQTLISLCTVSGFSLNSYGVYVYRQPPGKGLDWLGVINAGGTTNYN	79	
Db	1	qvqlqespgglvkpsetlsictvsgfslcnygvnwrvrsgpgkglewlgvkwsggsteyn	60	
QY	80	SALMSRLTISKDTSKNQVSLKSSVTAADTAVYYCARGPPHAKMKRGYAMDYWGQGTTLVT	139	
Db	61	aafisritiskdtskngvsklnsltaadtavyycarnd-----ryamdywgqgtltvt	113	
QY	140	VSS 142		
Db	114	VSS 116		
RESULT 15				
AAW05827				
ID	AAW05827	standard; Protein; 273 AA.		
XX				
AC	AAW05827;			
XX				
DT	27-JAN-1997	(first entry)		
XX				
DE	Humanised 1D10 antibody heavy chain.			
XX				
KW	B-cell lymphoma; humanised antibody; bispecific antibody;			
KW	myeloma; leukaemia; hybridoma; monoclonal antibody.			
XX				
OS	Chimeric Homo sapiens;;			
OS	Chimeric Mus sp.			
XX				
FH	Key	Location/Qualifiers		
FT	Domain	1..116		
FT		/label= Variable_domain		
FT	Region	31..35		
FT		/label= CDR1		
FT	Region	50..65		
FT		/label= CDR2		
FT	Region	98..105		
FT		/label= CDR3		
FT	Domain	117..214		
FT		/label= CH1		
FT	Domain	215..234		
FT		/label= Hinge		
FT	Domain	235..273		
FT		/label= Fos_leucine_zipper		
FT	Domain	340..446		
FT		/label= CH3		
XX				
PN	WO9626964-A1.			
XX				
PD	06-SEP-1996.			
XX				
PF	29-FEB-1996;	96WO-US02754.		
XX				
PR	01-MAR-1995;	95US-0397411.		
XX				
PA	{IOWA-} IOWA IMMUNOTHERAPY INVESTIGATORS.			
XX	(PROT-) PROTEIN DESIGN LABS INC.			
PI	Gingrich R, Link BK, Tso JY, Weiner G;			
XX				
DR	WPI; 1996-412742/41.			
XX				
PT	New bispecific antibody reactive with both T or NK cells and			
PT	malignant B cells - also their humanised forms and hybridomas			
PT	producing them, useful for treating or preventing leukaemia,			
PT	lymphoma and myeloma			
XX				
PS	Claim 28; Fig 4d; 85pp; English.			

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XX The humanised ID10 antibody heavy chain (AAW05827) includes a
 CC variable region (see also AAW05823) consisting of human R3.5HG heavy
 CC chain variable region framework and complementarity determining
 CC regions from the murine ID10 antibody specific for a 28/32 kDa
 CC antigen found on the surface of malignant B-cells. It can be
 CC coexpressed with humanised ID10 light chain (see also AAW05828) in
 CC mammalian host cells. Bispecific antibodies can be constructed that
 CC include a first binding fragment comprising humanised M291 heavy and
 CC light chain variable regions (see also AAW05826, AAW05830), and a second
 CC binding fragment comprising humanised ID10 heavy and light chain
 CC variable regions. Such antibodies are reactive with both T or NK
 CC cells and malignant B cells, and have therapeutic and diagnostic
 CC applns.
 XX
 SQ Sequence 273 AA;

Query Match 69.5%; Score 515.5; DB 17; Length 273;
 Best Local Similarity 80.5%; Pred. No. 3.1e-39;
 Matches 99; Conservative 10; Mismatches 7; Indels 7; Gaps 1;
 QY 20 QVQLQESGPGLVKPSQTLSTCTVSGFSLTSYGVYVWRQPPGKGLWLVGIWAGGTTNYN 79
 Db 1 qvqlqesgpglvkpsqtlstctvsgfsltnygvhwirgspgkglewigkwsggsteyn 60
 QY 80 SALMSRLTISKDTSKNQVSLKLSVTAADTANYVCARGPPHAMMKRGYAMDYWGOGTLVT 139
 Db 61 aafisrltiskdtsknqvalkslnltaadtavyycaard-----ryamdywgggtlvt 113
 QY 140 VSS 142
 Db 114 vss 116

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